

REMARKS

In the Office Action the Examiner rejected claims 1-20 under 35 U.S.C. 102(e) for being anticipated by Mangat et al. (U.S. Patent 6,653,053) or Levinson (U.S. Patent 6,872,497) or Chan (U.S. Patent 6,908,716).

Mangat et al. teach a method of making an attenuated phase shifting reflective mask by depositing, in part, a hard mask (or repairable) layer over the buffer layer. The hard mask can be made of TaSiN and the buffer layer is comprised of Si and O, particularly SiON. Mangat does not teach, nor claim, *a first hard mask over the absorber, wherein the first hardmask comprises carbon and a second hardmask layer over the first hardmask layer*, which is required in Applicants' independent claims 1, 8, and 15. This dual hardmask in the current application allows for a thinner photoresist to be used and thus, high aspect ratio features can be formed. Without teaching such a dual layer hardmask, Mangat cannot be used as a 102(e) rejection to invalidate Applicants' claims.

Similarly, Levinson et al. teach a method of forming a reflective mask by depositing a reflective layer, an optional capping layer over the reflective layer and then a hardmask over the optional capping layer. Levinson does not teach, nor contemplate *a first hard mask over the absorber, wherein the first hardmask comprises carbon and a second hardmask layer over the first hardmask layer*. The three elements required by the independent claims in the current application are the absorber, the first hardmask and the second hardmask. These three layers are further described as being deposited *over the reflective layer*. Levinson does not teach all of these layers as being present. Without these teachings, Levinson cannot be used in a 102(e) rejection to invalidate Applicants' claims.

Chan teaches a hardmask that is deposited over a chromium oxide anti-reflective layer. Again, Chan does not teach nor contemplate the use of *a first hard mask over the absorber, wherein the first hardmask comprises carbon and a second hardmask layer over the first hardmask layer* which is required by Applicants' independent claims 1, 8, and 15. Without this information, Chan cannot be used in a 102(e) rejection to invalidate Applicants' claims.

In the rejection notice, the Examiner has summarized the inventions of the three patents listed above but has not provided sufficient detail to explain to the Applicants where these patents teach all of the aspects of the claimed invention. Applicants remind the Examiner of the USPTO's requirement under MPEP 706 that "[w]hen a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified." Applicants have made their best effort to determine how the Examiner is relying on the references to teach or suggest the features of the claims. If after considering Applicant's arguments in this response, the Examiner upholds any of the rejections, Applicants request that additional guidance be provided to help clarify how the references are being used to reject the claims to aid in the process.


Applicants believe the application is in condition for allowance which action is respectfully solicited. Please contact the below-signed if there are any issues regarding this communication or otherwise concerning the current application.

Respectfully submitted,

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